BOOK REVIEW

HAROLD W. KELLER and KARL L. BRAUN. 1999. **Myxomycetes of Ohio: Their Systematics, Biology, and Use in Teaching.** (ISBN 0-86727-133-7, pbk.). Ohio Biological Survey Bulletin New Series volume 13 Number 2 (ISSN 0078-3994). Ohio Biological Survey, 1315 Kinnear Road, Columbus, OH 43212-1192, U.S.A. (615-292-9645, 614-688-4322 fax; http://www-obs.biosci.ohio-state.edu). $35.00 pbk.(Wire-O Binding or Perfect Binding) xvi + 182 pp., 16 color plates.

"Half animal-half plant!" A fungus **and** a protozoan? A naked mass of colorful, slimy, "snot-like" protoplasm, sometimes several inches or more across, creeping in mass or in a vein-like network over rotten logs and leaves in the woods - or in the lab on a bowl of oatmeal. Under the microscope beautifully ornamented globe-shaped balls, the wind-borne spores that in dew break open to release minute, swarming, sperm-like creatures that swim with rapidly moving flagellar paddles, these zoospores changing into white blood cell-like amoebas that glide and feed by engulfing bacteria and other minute morsels, these reproducing themselves into an army of amoebas that eventually reunite and fuse into masses of streaming, multinucleated protoplasm, which, like the beautiful butterfly that emerges from the drab cocoon, may change overnight into dozens of minute, marvelously structured and colorful spore producing bodies that we can see easily with a 10 X hand lens and which contain the tiny balls that we saw first under the microscope.

What are Myxomycetes? Mycology has been the traditional home for this mysterious group of "animal-like plants." How do mycologists study this living stuff where there is no such thing as an individual organism that we can separate and count or experiment with such as an ant, a single great ape, or a single bean plant? Does it really matter where in their hierarchical categories the biosystematists place these creatures? Wherever Myxomycetes are classified, they are wonderfully fascinating life.

One of the most important kinds of biosystematic research is that which results in practical, useful products that can be used at a local level by teachers, students, and other scientists to learn about and identify the specific organisms in their immediate surroundings. This is especially true for microorganisms, which are much less popular than macroorganisms and have had very few useable publications written about them at a local level.

Keller and Braun's book is the kind of product that gives practical, useful, thorough, colorful information about the biology, morphology, and taxonomy of Myxomycetes. It also includes valuable information about techniques for studying these fantastic microorganisms. I recommend this book especially because it not only presents the well-organized scientific data about Myxomycete species, but also because of its personal touch about the authors, their teachers, their students, and other scientists who have contributed to knowledge of Ohio Myxomycetes. But this book is valuable in a much wider area than the state of Ohio. Nearly 35 % of the world's 600 species and 57 genera of Myxomycetes are included, and the contributions of the scientists mentioned has had influence worldwide.

Every state needs an agency like the Ohio Biological Survey that supports field research on groups of local biota and publication of useful, interesting, practical information about the specific things that live in our own backyards. Where in the United States of America is there a county that has all of its species biodiversity catalogued? In what locality does anyone know all of the living things, especially the microorganisms, that one might find in a handful of soil from nearby parks, prairies, woodlands, schoolyards, or even flower pots? Keller and Braun have produced an excellent book that is a necessary step toward achieving the goal of an "all-taxa inventory" of at least a small part of the world.—*Joe F. Hennen, Resident Research Associate, Botanical Research Institute of Texas, Fort Worth, TX 76102-4060, U.S.A.*

SIDA 19(2): 256. 2000